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UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA, WESTERN DIVISION

REALTIME ADAPTIVE STREAMING LLC,

Plaintiff,

vs.

GOOGLE LLC, and YOUTUBE, LLC,

Defendants.

Case No. 2:18-CV-03629-GW-JC

MEMORANDUM OF POINTS AND AUTHORITIES IN SUPPORT OF DEFENDANTS' MOTION TO DISMISS PORTIONS OF PLAINTIFF'S COMPLAINT

Date: August 27, 2018
Time: 8:30 a.m.
Courtroom: 9D
Judge: Hon. George H. Wu

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I. INTRODUCTION

Four of Plaintiff Realtime Adaptive Streaming LLC's ("Realtime") five patent infringement claims (*i.e.*, Counts I–IV) should be dismissed.[1] Three of the claims assert patents directed to patent-ineligible subject matter and one asserts a surrendered patent. Specifically, the '462 patent was surrendered before Realtime filed the Complaint, and therefore cannot be the subject of an infringement suit.

Three of the five patents-in-suit (the '046, '535, and '477 patents; collectively, the "Fallon patents") pertain to abstract ideas that are patent-ineligible under 35 U.S.C. § 101. The Fallon patents relate to the field of data compression (also known as "data encoding"), which is the process of reducing the number of bits in a data file to reduce the resources needed to transmit and store it. Data compression methods vary in the amount of time they take to compress a file. The fastest methods tend to result in the least amount of compression relative to the original file size; conversely, the most computationally intensive and time-consuming methods often yield the greatest amount of compression, resulting in a smaller file size. Accordingly, the choice of a particular data compression method necessarily involves a trade-off between speed and size.

The purported "invention" of the Fallon patents is having a computer perform this trade-off. Specifically, the patents are directed to selecting a compression method based on some "parameter," such as the transmission rate of a computer system, which is known as the system's "throughput."

The patents fail the two-step test for patentability articulated in *Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014). With respect to the first step, the Fallon patents claim the abstract idea of selecting an algorithm to compress data based on

[1] The five asserted patents are U.S. Patent Nos. 8,934,535 ("the '535 patent"); 9,769,477 ("the '477 patent"); 7,386,046 ("the '046 patent"); 8,634,462 ("the '462 patent"); and 9,578,298 ("the '298 patent"). The asserted patents are attached as exhibits to the Complaint. (*See* ECF Nos. 1-1 through 1-5.)

some attribute, such as throughput. Importantly, compression algorithms existed long before the Fallon patents, and the patents do not disclose any new compression method. They simply instruct a user to choose from among well-known compression algorithms based on some attribute of the system or the data to be processed. A representative claim teaches "determining a parameter" of the data to be processed, "selecting" a compression algorithm "based upon the determined parameter," and "compressing" the data "with the selected" algorithm. ('535 patent claim 15). In short, the claim teaches selecting a tool based on some attribute of the task to be performed.

The Federal Circuit has held that compressing and decompressing (or "encoding" and "decoding") data is an abstract idea that is not patent-eligible. *See RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1326 (2017) (holding "encoding and decoding" data is "an abstract concept long utilized to transmit information."). Moreover, the Court repeatedly has recognized that using rules or criteria to select among conventional alternatives is also an abstract idea, which is not rendered patent-eligible by being performed by a computer. *See, e.g., SmartGene, Inc. v. Advanced Bio. Labs., SA*, 555 Fed. App'x 950, 951–52 (Fed. Cir. 2014) ("method for guiding *the selection* of a therapeutic treatment regimen" based on "patient information" is an ineligible abstract idea) (emphasis added); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1369 (Fed. Cir. 2015) (process for *selecting* and presenting content based on criteria about the user—such as their residence or viewing habits—is an abstract idea). The Fallon patents are directed to the same abstract ideas as were claimed in these prior cases.

The Fallon patents also fail under the second step of *Alice* because they do not contain an "inventive concept sufficient to transform the claimed abstract idea into a patent-eligible [invention]." *Alice*, 134 S. Ct. at 2357 (internal quotation marks omitted). The patent claims recite only conventional computer elements, such as an unspecified "compression algorithm," "the Internet," "a storage device," and "data blocks." The patent specification emphasizes the conventional nature of these

computer elements, stating that the purported invention is implemented with *existing* compression algorithms using *existing* hardware and software. These "well-understood, routine, conventional" elements are insufficient to transform the abstract idea into a patent-eligible invention. *Mayo Collaborative Services v. Prometheus Labs., Inc.*, 566 U.S. 66, 79–80 (2012).

In addition, the Supreme Court has held that "the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of [the idea] to a particular technological environment." *Alice*, 134 S. Ct. at 2358. Although the Fallon patents relate to computer environments and appear to be limited to the field of digital data compression, they do not claim any algorithm for data compression, or even any algorithm for selecting among different data compression methods. The claims encompass only the concept of compression optimization at its most abstract level—using some criterion to choose from among known algorithms. The patents are thus pitched to the same level of abstraction as numerous other patents held to be patent-ineligible that claimed computerized selection among known alternatives based on specified rules or criteria. That the claimed selection process "could be performed more efficiently via a computer" does not transform it into a patentable concept. *Bancorp Services, LLC v. Sun Life Assur. Co.*, 687 F.3d 1266, 1278 (Fed. Cir. 2012).

II. BACKGROUND

The Fallon patents explain that data compression, also referred to as data encoding, refers generally to the concept of reducing the size of a file by substituting one form of computer code with a more condensed form of computer code, rendering it easier to transmit and store. (*See* '535 patent at 2:44–49.) The most popular computer-based compression algorithms (*e.g.*, zip, JPEG, MPEG, MP3, AAC) date back several decades. But the concept of compression long predates modern computing. Humans have performed compression since the advent of the

printed word, using abbreviations, single words, and hieroglyphs to communicate complex concepts in a consolidated form.

The Federal Circuit recently recognized that "encoding and decoding" data is "an abstract concept long utilized to transmit information." *RecogniCorp*, 855 F.3d at 1326. The Federal Circuit provided several examples of abstract (and patent ineligible) encoding and decoding systems, such as "Morse code, ordering food at a fast food restaurant via a numbering system, and Paul Revere's 'one if by land, two if by sea' signaling system." *Id.* As described in greater detail below, the Fallon patents relate to data compression, and more specifically to choosing a data compression algorithm based on a parameter.

The three Fallon patents are all closely related to each other. They are in the same patent family, have the same inventors, share the same specification, and contain similar claim language. Although the patents are directed to the concept of data compression, they acknowledge that compression is a well-known concept that was conventional at the time of the purported invention. (*See, e.g.*, '535 patent at 1:31–32 ("There are a variety of data compression algorithms that are currently available."); *id*. at 2:44–46 ("Data compression is widely used to reduce the amount of data required to process, transmit, or store a given quantity of information.").)

Importantly, the Fallon patents do not purport to invent a novel method for compressing data, nor do the claims specify any particular algorithm for compressing data. In fact, the patents contain a list that extends more than 20 pages of prior art describing various preexisting compression methods. (*See* '535 patent at pp. 6 to 29.) The patents describe two general types of data compression methods: "symmetrical" methods, for which the computational time needed to compress the data is equal to that needed to decompress the data; and "asymmetrical" methods, in which compression and decompression occur at different rates. (*Id.* at 9:60–10:14.) The specification specifically identifies various examples of both types that preexisted the claimed invention, including "Lempel-Ziv" and "Huffman"

compression methods. (*Id.* at 10:1–10.) The patents use the terms "compress" and "encode" (and "decompress" and "decode") interchangeably. (*See* '535 patent at 2:46–49, 4:33–34, 4:45–50.)

The Fallon patents also recognize that it was conventional at the time of the claimed invention to select a compression method based on specified parameters. (*See* '535 patent at 1:32–33 ("Many compression algorithms define one or more parameters that can be varied, either dynamically or a-priori, to change the performance characteristics of the algorithm.").) Indeed, the patents acknowledge that it is conventional to consider parameters such as "speed" and "efficiency" in deciding the compression method to be used. (*See* '535 patent at 1:50–53 ("[T]he desired balance between speed and efficiency is typically a significant factor that is considered in determining which algorithm to employ for a given set of data.").)

Each of the Fallon patents is directed to a method of using a computer to select a compression algorithm (sometimes referred to as a "compressor," an "encoder," or a "compression routine") based on some characteristic of the data to be compressed, or some attribute of the system across which the data is to be transmitted. The '535 patent, for example, is directed to a method of selecting a compression algorithm based on an unspecified "parameter or attribute" of the "data block" to be compressed. Claim 15—the only claim of the '535 patent that Realtime specifically identifies in the Complaint (ECF No. 1, ¶ 34.)—states:

> 15. A method, comprising:
>
> determining a parameter of at least a portion of a data block;
>
> selecting one or more asymmetric compressors from among a plurality of compressors based upon the determined parameter or attribute;
>
> compressing the at least the portion of the data block with the selected one or more asymmetric compressors to provide one or more compressed data blocks; and

> storing at least a portion of the one or more compressed data blocks.

The claim does not identify a specific compression algorithm to be used, referring simply to a generic "asymmetric compressor." It also fails to identify a specific "parameter or attribute" on which the selection is to be based, or even how the "parameter or attribute" is employed in the selection process. Claim 15 is representative of the other claims, which add only minor variations to the same basic concept. *See Content Extraction & Transmission LLC v. Wells Fargo Bank Nat'l Ass'n*, 776 F.3d 1343, 1359 (Fed. Cir. 2014) (finding claim representative of all patent claims where claims are substantially similar and directed to same abstract idea). Realtime acknowledges this by alleging that Defendants infringe additional claims of the '535 patent "for similar reasons," without providing any additional factual allegations. (ECF No. 1 at ¶ 47.)

The '477 and '535 patents both claim priority through a chain of continuation applications to the application that issued as the '046 patent, and therefore are based on the same specification. The claims of the '477 patent are directed to selecting a compression algorithm (here referred to as an "encoder") based upon "one or more data parameters." Claim 1, the only claim of the '477 patent specifically identified in the Complaint, states:

> 1. A system, comprising:
>
> a plurality of different asymmetric data compression encoders,
>
> wherein each [encoder] is configured to utilize one or more data compression algorithms, and
>
> wherein a first [encoder] is configured to compress data blocks containing video or image data at a higher data compression rate than a second [encoder]; and
>
> one or more processors configured to:

> determine one or more data parameters, at least one of the determined one or more data parameters relating to a throughput of a communications channel measured in bits per second; and
>
> select one or more asymmetric data compression encoders from among the plurality of different asymmetric data compression encoders based upon, at least in part, the determined one or more data parameters.

The '477 patent claims are equally as vague and abstract as the '535 patent claims. As with the '535 patent, the claim teaches selecting from among a group of compression algorithms based on some "data parameter," which the claim indicates may be the "throughput" of a communications channel. Like the '535 patent, the '477 patent does not teach a new compression algorithm or identify a specific compression algorithm to be employed; nor does it identify any algorithm for selecting among different compression methods. Claim 1 is representative of the other claims of the '477 patent, which add only minor variations to the same basic concept. As with the '535 patent, Realtime acknowledges this by employing the same generic allegation that Defendants infringe additional claims of the '477 patent "for similar reasons," without any additional factual detail. (ECF No. 1, ¶ 67.)

The '046 patent does specify that the selection of the compression algorithm is based upon the throughput of the system. However, the claims remain directed to the abstract idea of selecting a compression method best suited to the transmission rate of the data. Claim 40, the only claim of the '046 patent specifically identified in the Complaint, states:

> 40. A system comprising:
>
> a data compression system for compressing and decompressing data input;
>
> a plurality of compression routines selectively utilized by the data compression system, wherein a first one of the

> plurality of compression routines includes a first compression algorithm and a second one of the plurality of compression routines includes a second compression algorithm; and
>
> a controller for tracking throughput and generating a control signal to select a compression routine based on the throughput, wherein said tracking throughput comprises tracking a number of pending access requests to a storage device; and
>
> wherein when the controller determines that the throughput falls below a predetermined throughput threshold, the controller commands the data compression engine to use one of the plurality of compression routines to provide a faster rate of compression so as to increase the throughput.

Like the other Fallon patents, the '046 patent does not identify a specific compression algorithm to be used, referring only to a generic "compression routine." It also does not specify how a particular compression algorithm is to be selected based on the determined "throughput." Claim 40 is representative of the other claims of the '046 patent, which add only minor variations to the same basic concept. Again, as with the other Fallon patents, Realtime acknowledges the similarity of the other claims by alleging that Defendants infringe additional claims of the '046 patent "for similar reasons," without making any additional factual allegations. (ECF No. 1, ¶ 28.)

Although the wording of the Fallon patent claims varies, close review reveals that each claim is directed to the same concept of selecting a generic compression algorithm on the basis of a known parameter. None of the claims specifies a specific algorithm to compress data; none of them specifies a particular relationship between a specific parameter and the process for selecting a compression algorithm; and none of them describes how the selection process is to occur. The patents are

functional—describing a nonspecific function to be performed—and do not claim a specific technological solution.

III. LEGAL STANDARD

Section 101 of the Patent Act defines the type of subject matter that is patent-eligible. 35 U.S.C. § 101. Whether a patent claims patent-eligible subject matter is a "threshold inquiry," *In re Bilski*, 545 F.3d 943, 950–51 (Fed. Cir. 2008) (*en banc*), *aff'd*, 561 U.S. 593 (2010), that may be, and regularly is, decided at the pleadings stage, without claim construction, *see, e.g., Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 717 (Fed. Cir. 2014); *Bancorp Servs., LLC v. Sun Life Assurance Co.*, 687 F.3d 1266, 1273–74 (Fed. Cir. 2012); *Automated Tracking Solutions, LLC v. Coca-Cola Co.*, 723 Fed. App'x 989, 995 (Fed. Cir. 2018). Other courts in this District have granted motions to dismiss under Rule 12(b)(6) for lack of patent eligibility. *See, e.g., Talent Broker Tech. LLC v. Musical.ly, Inc.*, 2018 WL 3019641, at *6–10 (C.D. Cal. May 22, 2018) (granting Rule 12(b)(6) motion to dismiss due to lack of patent eligibility); *Activision Publ'g, Inc. v. xTV Networks, Ltd.*, 2016 WL 6822751, at *4–5 (C.D. Cal. July 25, 2016) (same); *Coffelt v. NVIDIA Corp.*, 2016 WL 7507763, at *6 (C.D. Cal. June 21, 2016) (same).

The Supreme Court has long interpreted § 101 to hold that "laws of nature, natural phenomena, and abstract ideas are not patentable." *Alice*, 134 S. Ct. at 2354. These basic principles are excluded from patent eligibility because they are the very "building blocks of human ingenuity," *id.* at 2359, and should be "free to all men and reserved exclusively to none," *Mayo*, 566 U.S. at 71.

The Supreme Court's *Alice* test sets forth a two-part standard for assessing subject-matter eligibility for computer-implemented inventions. In the first step, the court must determine whether the claims are "directed to" patent-ineligible subject matter, such as an abstract idea. *Alice*, 134 S. Ct. at 2355. To determine whether the claim is "directed to" an abstract idea, the court must determine the "focus of the claimed advance over the prior art"—that is, what is the "character [of the claim] as

a whole." *Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1325 (Fed. Cir. 2017) (internal quotation marks omitted). While no conclusive rule determines what is abstract, both the Federal Circuit "and the Supreme Court have found it sufficient to compare claims at issue to those already found to be directed to an abstract idea in previous cases." *LendingTree, LLC v. Zillow, Inc.*, 656 Fed. App'x 991, 995 (Fed. Cir. 2016) (citation omitted). In a related context, the Federal Circuit recently confirmed that, where the "character of the claim" pertains to "encoding and decoding" data, the claim is directed to an abstract idea that fails *Alice* step one. *See RecogniCorp*, 855 F.3d at 1326. The Federal Circuit also has recognized that using well-known criteria to select from known alternatives is an abstract idea that does not become patent eligible merely by being implemented in a computer. *See, e.g., SmartGene*, 555 Fed. App'x at 951–52; *Intellectual Ventures*, 792 F.3d at 1369 (Fed. Cir. 2015).

Under *Alice* step two, the court must determine whether the patent claims include an "inventive concept" that is "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [abstract idea] itself." *Alice*, 134 S. Ct. at 2355 (internal quotation marks omitted). In order to survive step two, the inventive concept cannot simply limit the alleged invention to "a particular technological environment." *Bilski v. Kappos*, 561 U.S. 593, 610–11 (2010) (internal quotation marks omitted). The inventive concept must be truly inventive; it is not sufficient to include "well-understood, routine, conventional" features. *Mayo*, 566 U.S. at 79–80. Merely reciting conventional computer elements "cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Alice*, 134 S. Ct. at 2358; *see also Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1341 (Fed. Cir. 2017) (finding no inventive concept where claims recited "both a generic computer element—a processor—and a series of generic computer 'components'").

IV. ARGUMENT

A. The Fallon Patents' Claims Are Patent-Ineligible

The Fallon patents are ineligible because they claim the abstract idea of ***selecting*** a compression algorithm based on a characteristic of the system or the data to be compressed. As described below, this abstract idea is untethered to any technological solution. The patent claims do not specify a specific algorithm for compressing data; they do not identify a specific process or relationship by which a compression method is to be selected; and they do not identify any novel computer elements, such as hardware or software, to accomplish the claimed compression. The patent claims are purely functional and merely describe a trade-off between speed and file size. The fact that the patents employ conventional computer elements to perform this task in a particular technological field does not transform the abstract idea into a patent-eligible invention.

1. *Alice* Step 1: The Fallon Patents Are Directed to the Abstract Idea of Selecting a Compression Algorithm.

The Fallon patents are directed to the abstract idea of selecting a compression algorithm based on a parameter of the system or the data to be compressed. Each of the patent claims performs a series of three generic steps. First, the patents look at a "parameter," *i.e.*, a characteristic of the data to be compressed or an attribute of the system, such as throughput.[2] Second, upon looking at the parameter, the Fallon patents choose an unspecified compression algorithm.[3] Finally, the Fallon patents

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[2] *See, e.g.*, '535 patent at Claim 15 ("determining a parameter of . . . a data block"); '477 patent at Claim 1 ("determine one or more data parameters"); '046 patent at Claim 40 ("tracking throughput . . . [of] a storage device").

[3] *See, e.g.*, '535 patent at Claim 15 ("selecting one or more asymmetric compressors . . . based upon the determined parameter"); '477 patent Claim 1 ("select one or more asymmetric data compression encoders . . . based upon, at least in part, the (footnote continued)

compress the data with the selected algorithm.[4] The claimed method simply claims selecting a generic tool based on an attribute of the task to be accomplished.

In fact, Federal Circuit precedent makes clear that data compression, in and of itself, is an abstract idea that is not eligible for patent protection. In *RecogniCorp*, the Federal Circuit affirmed an invalidity finding under § 101 where the patent claimed a method "whereby a user starts with data, codes that data using 'at least one multiplication operation,' and ends with a new form of data." *RecogniCorp*, 855 F.3d at 1327. The Federal Circuit held that the patent merely recited the abstract concept of "encoding and decoding" data:

> This method reflects standard encoding and decoding, an abstract concept long utilized to transmit information. [citation omitted]. Morse code, ordering food at a fast food restaurant via a numbering system, and Paul Revere's "one if by land, two if by sea" signaling system all exemplify coding at one end and decoding at the other end.

Id. at 1326. Thus, the Court held, a method of encoding "that started with data, added an algorithm, and ended with a new form of data was directed to an abstract idea." *Id.* at 1327; *see also Digitech Image Techs., LLC v. Elecs. For Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014) ("[A] process that employs mathematical algorithms to manipulate existing information to generate additional information is not patent eligible.").

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determined one or more data parameters"); '046 patent at Claim 40 ("select a compression routine based on the throughput").

[4] *See, e.g.*, '535 patent at Claim 15 ("compressing the at least the portion of the data block with the selected one or more compressors"); '046 patent at Claim 40 ("the controller commands the data compression engine to use one of the plurality of compression routines").

The Federal Circuit also has recognized that methods of programming a computer to select various alternatives based on parameters are directed to an abstract idea. *See, e.g., SmartGene*, 555 Fed. App'x at 954–55 (Fed. Cir. 2014) (computer program for generating medical advice based on "expert rules" applied to a "ranked listing of available therapeutic treatment regimens" constituted abstract idea); *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1361 (Fed. Cir. 2015) ("us[ing] a general-purpose computer to implement the abstract idea of 'price optimization'" constitutes abstract idea); *Accenture Global Services, GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1344 (Fed. Cir. 2013) ("[G]enerating tasks [based on] rules . . . to be completed upon the occurrence of an event" is an abstract idea); *Intellectual Ventures, LLC v. Symantec Corp.*, 838 F.3d 1307, 1317 (Fed. Cir. 2016) (computerized system for processing e-mail messages in business network "by applying business rules to the messages" is an abstract idea); *Intellectual Ventures I*, 792 F.3d at 1369–70 (selecting and presenting content based on user criteria—such as residence or viewing habits—is an abstract idea).

At their core, the Fallon patents claim these same abstract ideas. They merely claim a process for selecting among unspecified, conventional compression algorithms based upon some unspecified, parameter-based rule. As in *RecogniCorp*, the claimed methods merely "start[] with data, add[] an algorithm, and end with a new form of data." 855 F.3d at 1327.

Nowhere do the Fallon patents claim a ***novel*** data compression method. *Cf. DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1259 (Fed. Cir. 2014) (suggesting, in *dicta*, that such a method might be patent-eligible). Indeed, the Fallon patents fail to claim any specific compression algorithm at all. They simply instruct the reader to employ generic "compression algorithms that are currently available," ('535 patent at 1:31–32), which the patents acknowledge were "widely used" before the claimed inventions, (*id.* at 2:44). The Fallon patents' generic claims are indistinguishable from those that repeatedly have been held ineligible.

Many compression tools exist and each strikes a different balance among executing at high speeds, compressing data to the theoretical limits, and maintaining the quality of the data (*i.e.*, lossy vs. lossless compression). (*See, e.g.,* '535 patent at 1:53–55, 2:46–49.) It is well known for human users to select from among different compression methods based on certain parameters, such as the capabilities of the communication channel used for transporting the data (*e.g.*, a user may select to compress a photograph to a greater extent when sending it by email than when sending it by FTP). The Fallon patents' inventors neither first recognized these necessary trade-offs, nor invented any particular technological means to effectuate them. Instead, the Fallon patents purport to monopolize all automated methods of selecting an appropriate compression method from among several known algorithms. But that is simply a claim to an abstract idea, rather than to a technological solution. *See McRO, Inc. v. Bandai Namco Games Am., Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (patent claims ineligible where they "are not directed to a specific invention and instead improperly monopolize 'the basic tools of scientific and technological work' [or] … abstractly cover results where 'it matters not by what process or machinery the result is accomplished.'") (citations omitted). Moreover, that a computer can track throughput or other parameters more quickly than a person can does not render the inventive concept any less abstract. *OIP Tech.*, 788 F.3d at 1363 ("[R]elying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible.").

In sum, the Fallon patents' selection of a compression algorithm based on a characteristic of the data to be compressed is an abstract idea employed throughout history; it had been conducted long before the claimed invention, and the concept is reflected in the different compression algorithms used for CDs and portable media players (for audio) and DVDs, Blu-Ray and digital cameras (for video). Because the Fallon patents fall into the category of "analyzing information by steps people go through in their minds, or by mathematic algorithms, without more," there is no

doubt that the patent claims are abstract in nature. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016). The asserted claims are abstract because, rather than "focus[ing] on a specific means or method," they are "directed to a result or effect that itself is the abstract idea and merely invoke[] generic processes or machinery," *i.e.*, choosing a compression algorithm based on a characteristic, rather than a specific method or tool for compressing data. *Two-Way Media Ltd. v. Comcast Cable Comm'n, LLC*, 874 F.3d 1329, 1336 (Fed. Cir. 2017).

Of note, this case is easily distinguishable from *Enfish, LLC v. Microsoft Corp.* (and its progeny), where the Federal Circuit found that the claimed invention resulted in a "specific improvement to the way computers operate." 822 F.3d 1327, 1336 (Fed. Cir. 2016). In *Enfish*, the asserted patent claims described a detailed "four-step algorithm" that yielded a novel "self-referential table for a computer database." *Id.* at 1337. In fact, the claims had a means-plus-function element whose corresponding structure was an algorithm that specified *how* the table was to be configured, including details like assigning an object identification number and using it as a pointer. *Id.* at 1336. Details like those present in *Enfish* are wholly missing in the claims of the Fallon patents, which fail to disclose any specific algorithm for detecting relevant parameters of data or any specific algorithm for compressing data. Rather, the claims recite the generic method of selecting the best compression algorithm based on unspecified parameters. The "essentially result-focused, functional character" of the claims is a "frequent feature of claims held ineligible under § 101." *Elec. Power Grp.*, 830 F.3d at 1356. This generic selection method as claimed in the Fallon patents thus does not yield any "*specific* improvement to the way computers operate." *Enfish*, 822 F.3d at 1336 (emphasis added).

2. *Alice* Step 2: The Fallon Patents Do Not Contain an Inventive Concept to Transform Their Claims into Patent-Eligible Inventions.

The Fallon patents do not contain any "inventive concept" that is "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [abstract idea] itself." *Alice*, 134 S. Ct. at 2355 (internal quotation marks omitted). The patent claims are devoid of any hardware requirements that tie them to a particular device or implementation. To the extent the claims recite specific computer elements, they are only "well-understood, routine, conventional" elements that do not accomplish the necessary transformation. *Mayo*, 566 U.S. at 79. The additional claim limitations are, at best, field-of-use limitations that do not provide the necessary inventive concept. *See Intellectual Ventures*, 850 F.3d at 1340.

For example, the limitations of exemplary Claim 15 of the '535 patent do nothing more than implement the abstract idea of selecting a compression algorithm, without any additional inventive concept. The '535 patent does not claim any novel use of computer hardware or software, nor does it claim a novel algorithm. It claims only the use of an *existing* compression algorithm selected on the basis of an *existing*, unspecified parameter. This is not inventive; it simply describes the abstract concept of optimizing the choice of a compression method based on some unspecified parameter. While the claim ends with the generic step of "storing [the] compressed data blocks," it does not claim any novel way of storing data or even include limitations regarding particular storage hardware. This limitation recites "merely what computers do"—store data—and thus fails to move the needle on patentability. *Ultramercial*, 772 F.3d at 717; *see also Content Extraction*, 776 F.3d at 1347 (holding that claims directed to "1) collecting data, 2) recognizing certain data within the collected data set, and 3) *storing* that recognized data in memory" are patent-ineligible) (emphasis added). Moreover, the Fallon patents make clear

that the recited compression algorithms and computer elements were conventional at the time of the purported invention. (*See, e.g.*, '535 patent at 1:31–32, 2:44–46.)[5]

Nor do any of the other claims of the '535 patent yield a patentable, inventive concept.[6] The other claims provide only inconsequential variations on Claim 15. *See Content Extraction*, 776 F.3d at 1359 (finding claim representative of all patent claims where claims are substantially similar and directed to same abstract idea). For example, some of the claims require use of an "asymmetrical" compression algorithm. (*E.g.*, '535 patent claims 1–14.) But the patent specification makes clear that "asymmetrical" compression algorithms long preceded the claimed invention and even identifies several conventional asymmetric algorithms. (*See* '535 patent at 1:35–38, 9:60–10:4.) The patent does not claim any improvements to these

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[5] Although some patent ineligibility determinations may require factual findings as to whether claim elements are well-understood, routine, or conventional, *see Berkheimer v. HP Inc.*, 881 F.3d 1360 (Fed. Cir. 2018), the Federal Circuit has recognized that dismissals on the pleadings are proper when, as here, the patent specification makes clear that the recited claim elements were well understood, routine, or conventional, *see Automated Tracking Solutions, LLC v. Coca-Cola Co.*, 723 Fed. App'x 989, 995 (Fed. Cir. 2018) (finding no "disputed fact question" existed because the patent specification "indicates that the recited components . . . were conventional.").

[6] Realtime attempts to allege infringement of "other claims" of the '535, '477, and '046 patents, but fails to identify which other claims are infringed, what products infringe those claims, and how those products infringe those other claims. Realtime's generic allegations as to the "other" patent claims not detailed in the Complaint do not contain "enough facts to state a claim to relief that is plausible on its face," and thus those claims have yet to be asserted. *Bell Atlantic Corp. v. Twombly*, 550 U.S. 554, 570 (2007); *see also Am. Well Corp. v. Teladoc, Inc.*, 191 F. Supp. 3d 135, 140 (D. Mass. 2016) (holding defendant does not have burden to challenge eligibility of claims for which plaintiff has not alleged infringement). Realtime may nonetheless argue that these "other claims" are sufficiently distinct to render them patentable, but Realtime cannot remedy one infirmity in its Complaint by introducing another (that is, it cannot point to patent-eligible claims it has yet to assert). Notwithstanding (and without waiver), the other claims of the Fallon patents are addressed in the present motion.

conventional algorithms. Certain claims of the '535 patent are limited to "audio or video data." ('535 patent claims 1, 22, 27.) But that limitation simply "limits the invention to a technological environment," which does "not make an abstract concept any less abstract." *Intellectual Ventures*, 850 F.3d at 1340; *see also Affinity Labs of Texas, LLC v. Direct TV, LLC*, 838 F.3d 1253, 1258–59 (Fed. Cir. 2016) ("All that limitation does is to confine the abstract idea to a particular technological environment—in this case, cellular telephones."). Other claims of the '535 patent recite "transmitting" the data, sometimes "over the Internet". (*See* '535 patent claims 7, 13, 17, 19–21, 23, 29.) Here too, the transmission limitations recite only conventional computer functionality and do not add any patentable subject matter. *See buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) ("That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive."). Still other claims of the '535 patent recite decompressing the data. ('535 patent at Claims 7, 13–14, 23, 25–26.) Decompression is simply the inverse of compression. The Fallon patents do not disclose a specific technological method for either compression or decompression, but instead admit that methods for compression and decompression were "widely used" before the claimed invention. (*See* '535 patent at 1:31–32, 2:44–46.)

The claims of the '477 patent similarly are directed to the abstract idea of selecting a compression algorithm based on a parameter. Claim 1, which is the only claim detailed in the complaint, simply describes the same three-step process as the '535 patent: detect a parameter, select a compression algorithm (an "encoder") based on the parameter, and compress data. The only difference is that Claim 1 of the '477 patent states that at least one of the parameters to be detected is "throughput," which the patent specification explains is the bandwidth or rate at which the data can be transmitted. ('477 patent, 11:43–44.) As the cases cited at page 13 *supra* demonstrate, merely identifying a well-known parameter to be used in selecting from among known alternatives does not render an abstract selection

concept patent-eligible. *See buySAFE*, 765 F.3d at 1351 ("[N]arrowing to particular types of such relationships, themselves familiar, does not change the analysis.").

The other claims of the '477 patent contain only minor variations to Claim 1, and are likewise abstract. Several of the dependent claims limit the type of algorithm to be used. (*See* '477 patent claims 2, 6, 10–12, 20, 22, 26.) But neither the claims nor the specification disclose any non-conventional or novel compression algorithm; rather, the patent specification concedes that the algorithms recited in the claims were well-known before the claimed invention. *See RecogniCorp*, 855 F.3d at 1328 (invalidating claim "directed to the abstract idea of encoding and decoding," noting that "the addition of a mathematical equation that simply changes the data into other forms of data cannot save it."). Similarly, certain dependent claims include limitations regarding the parameters to be considered (*e.g.*, "resolution," "format," or "image data profile"). (*See* '477 patent claims 3–4, 7–9, 17, 20–21, 23–25.) These are conventional data parameters and limiting the parameters to be considered simply limits the claim to a "particular technological environment," which cannot save the claim. *Alice*, 134 S. Ct. at 2358. Like the '535 patent, certain claims of the '477 patent specify the use of the Internet (*e.g.*, '477 patent claims 13–14, 27), recite "storing" data without specifying any method or hardware to accomplish the storage (*e.g.*, '477 patent claim 19), and describe using a generic "processor" or "memory" (*e.g.*, '477 patent claims 1, 19–20). These limitations simply recite conventional computer operations that do not alter the abstraction analysis. *See, e.g.*, *Ultramercial*, 772 F.3d at 716 ("[T]he use of the Internet is not sufficient to save otherwise abstract claims. . . ."); *Content Extraction*, 776 F.3d at 1347 ("The concept of data . . . storage is undisputedly well-known."); *Intellectual Ventures*, 850 F.3d at 1341 (no inventive concept where claims recite "a generic computer element—a processor"). Lastly, some of the claims require a "descriptor," which is another word for a label, to be associated with the data block to be

compressed. ('477 patent claims 15–16, 28.) The inclusion of a generic label is a conventional computer operation that does not add an innovative concept.

The claims of the '046 patent fare no better. Claim 40, which is the only claim of the '046 patent detailed in the Complaint, is also directed to the abstract idea of selecting a compression algorithm and contains no additional inventive concept. As with the '477 patent, the '046 patent specifies that the parameter, "throughput," be considered. But again this limitation adds no inventive spark; as previously stated, merely identifying a well-known parameter to be used in selecting from among known alternatives does not render an abstract selection concept patent-eligible. *See* pp. 13, *supra*. The other claims of the '046 patent recite only minor variations that do not change the abstract nature of the claims. As with the '477 patent, certain dependent claims limit the type of data to be compressed (*e.g.*, '046 patent claims 3–4, 6–7, 9–10, 12–13, 15–16, 20–21), whether the algorithm to be used is "asymmetric" or "arithmetic" (*e.g.*, '046 patent claims 2, 5, 11, 33–36), or the communication channel used (*e.g.*, '046 patent claim 30). In so doing, the claims do not provide any unconventional or non-routine limitations that make the invention something more than an attempt to patent the ineligible abstract idea. Instead, they simply "limit the use of [the abstract idea] to a particular technological environment." *Alice*, 134 S. Ct. at 2358; *see also buySAFE*, 765 F.3d at 1354–55 (The claims' "narrowing to particular types of such relationships, themselves familiar, does not change the analysis."). In the rare instances that the claims recite any computer element at all, they include only generic, functional hardware (*e.g.*, "data processing system," "storage device," and "controller"). These "well-understood, routine, conventional" elements are insufficient to transform the abstract idea into a patent-eligible invention. *Mayo*, 566 U.S. at 79–80.

In sum, the claim limitations of each of the Fallon patents are directed to routine data manipulation using conventional compression techniques, and fail to add any inventive concept. The claims are drawn to a functional result—choosing a

compression algorithm based on a parameter—not to a particular technological solution. "The purely functional nature of [each] claim confirms that it is directed to an abstract idea, not to a concrete embodiment of that idea." *Affinity Labs*, 838 F.3d at 1269; *see also Elec. Power Grp.*, 830 F.3d at 1356 (This "essentially result-focused, functional character of claim language [is] a frequent feature of claims held ineligible."). As such, each of the Fallon patents is invalid as claiming only an abstract idea.

B. The '462 Patent Was Surrendered Before This Case Was Filed and Therefore Cannot Be the Subject of an Infringement Suit.

One of the patents asserted in the Complaint—the '462 patent—was surrendered by Realtime before filing the Complaint. When the parties met and conferred on this issue, Realtime's counsel did not dispute that Realtime had no basis for asserting the '462 patent against Defendants Google LLC and YouTube, LLC (collectively "Google"). Realtime nonetheless refused to amend its complaint to remove the baseless allegations because it did not want to amend its complaint on multiple occasions, insisting instead that Google file a motion to dismiss.[7]

Realtime filed the Complaint in this action on April 30, 2018. (ECF No. 1.) On April 3, 2018, more than three weeks before the Complaint was filed, the U.S. Patent and Trademark Office reissued the '462 patent at Realtime's request as U.S. Patent No. RE46,777. (*See* Request for Judicial Notice ("RJN"), Ex. A at 1.) Realtime requested that the '462 patent be reissued to correct an error in the '462 patent that, by Realtime's own admission, made "the original patent . . . wholly or partly inoperative or invalid." (RJN, Ex. B at 1.) Nonetheless, after the patent

[7] Although Google does not seek sanctions at this time, it notes that Realtime's continued assertion of an admittedly baseless claim violates Fed. R. Civ. P. 11(b)(2), which prohibits the continued assertion of "claims" that are not "warranted by existing law or by a nonfrivolous argument for extending, modifying, or reversing existing law or for establishing new law."

reissued, Realtime asserted the previously surrendered, admittedly inoperative '462 patent against Google. (*See* ECF No. 1 at ¶¶ 71–94.)

The Patent Act specifies that the reissuance of a patent results in the automatic "surrender" of the original patent: "The surrender of the original patent shall take effect upon the issue of the reissued patent. . . ." 35 U.S.C. § 252; *see also* 35 U.S.C. § 251 (permitting reissue only upon "the surrender of such [original] patent."). This has been the law for more than a century. *See Peck v. Collins*, 103 U.S. 660, 664 (1880) ("[I]t has been uniformly held that if a reissue is granted, the patentee has no rights except such as grow of the reissued patent. He has none under the original."). Realtime does not dispute that the '462 patent was surrendered on April 3, 2018, when the reissued patent issued, and that it no longer had any rights in the '462 patent at the time that it filed this lawsuit. The Court should dismiss with prejudice Realtime's claim for infringement of the '462 patent.

V. CONCLUSION

The claims of the Fallon patents do not include any inventive concept "sufficient to ensure that the patent[s] in practice amount[] to significantly more than a patent upon the [abstract idea] itself." *Alice*, 134 S. Ct. at 2355 (internal quotation marks omitted). The claims of the Fallon patents also offer no specific technological solution "sufficient to transform the claimed abstract idea into a patent-eligible invention." *Id.* at 2347 (internal quotation marks omitted). Because the claims of the Fallon patents are patent-ineligible under § 101, Google respectfully requests that the Court dismiss with prejudice Counts I, II, an III of Realtime's Complaint, which pertain to the Fallon patents. Google also respectfully requests that the Court dismiss with prejudice Count IV of the Complaint, which pertains to the '462 patent that was surrendered by Realtime.

DATED: July 16, 2018

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CERTIFICATE OF SERVICE

I certify that I caused the attached document to be filed using the Court's CM/ECF system and thereby served on counsel of record. I further certify that I have obtained the concurrence in the filing of this document by the above signatory.

DATED: July 16, 2018

/s/ *Zachary M. Briers*
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